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PTO/SB/21 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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|  |                        |                   |
|--|------------------------|-------------------|
| <b>TRANSMITTAL FORM</b><br><i>(to be used for all correspondence after initial filing)</i> | Application Number     | 10/075,780        |
|  | Filing Date            | February 12, 2002 |
|  | First Named Inventor   | Yoo, Sung-Joo     |
|  | Group Art Unit         | 2633              |
|  | Examiner Name          | Agustin Bello     |
| Total Number of Pages in This Submission   | Attorney Docket Number | 18062C-39.10US    |

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| ENCLOSURES (check all that apply)  |   |  |
|--|---|--|
| <input type="checkbox"/> Fee Transmittal Form<br><input type="checkbox"/> Fee Attached<br><input checked="" type="checkbox"/> Amendment / Reply<br><input type="checkbox"/> After Final<br><input type="checkbox"/> Affidavits/declaration(s)<br><input checked="" type="checkbox"/> Extension of Time Request<br><input type="checkbox"/> Express Abandonment Request<br><input type="checkbox"/> Information Disclosure Statement<br><input type="checkbox"/> Certified Copy of Priority Document(s)<br><input type="checkbox"/> Response to Missing Parts/ Incomplete Application<br><input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53 | <input type="checkbox"/> Assignment Papers (for an Application)<br><input type="checkbox"/> Drawing(s)<br><input type="checkbox"/> Licensing-related Papers<br><input type="checkbox"/> Petition<br><input type="checkbox"/> Petition to Convert to a Provisional Application<br><input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address<br><input type="checkbox"/> Terminal Disclaimer<br><input type="checkbox"/> Request for Refund<br><input type="checkbox"/> CD, Number of CD(s) | <input type="checkbox"/> After Allowance Communication to Group<br><input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences<br><input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)<br><input type="checkbox"/> Proprietary Information<br><input type="checkbox"/> Status Letter<br><input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):<br>Return Postcard |
| Remarks  |   | The Commissioner is authorized to charge any additional fees to Deposit Account 20-1430.   |

| SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT |  |
|--|--|
| Firm and Individual name                   | Townsend and Townsend and Crew LLP<br>Kenneth R. Allen Reg. No. 27,301 |
| Signature                                  | <i>Kenneth R. Allen</i>  |
| Date                                       | December 17, 2002  |

| CERTIFICATE OF MAILING   |                        |
|--|------------------------|
| I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231 on this date: December 17, 2002 |                        |
| Typed or printed name  | Diane E. Hawley        |
| Signature  | <i>Diane E. Hawley</i> |
| Date   | December 17, 2002      |

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PA 3271861 v1



# FEE TRANSMITTAL for FY 2003

Patent fees are subject to annual revision.

☒ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ ) 200

Complete if Known

Application Number 10/075,780  
Filing Date February 12, 2002  
First Named Inventor Yoo, Sung-Joo  
Examiner Name Agustin Bello  
Group Art Unit 2633  
Attorney Docket No. 18062C-39.10US

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## METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit Card ☐ MoneyOrder ☐ Other ☐ None

☒ Deposit Account:

Deposit  
Account  
Number

20-1430

Deposit  
Account  
Name

Townsend and Townsend and Crew LLP

The Commissioner is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☒ Credit any overpayments  
☒ Charge any additional fee(s) during the pendency of this application  
☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

## FEE CALCULATION

### 1. BASIC FILING FEE

Large Entity Small Entity

| Fee Code | Fee (\$) | Fee Code | Fee (\$) | Fee Description        | Fee Paid |
|----------|----------|----------|----------|------------------------|----------|
| 1001     | 740      | 2001     | 370      | Utility filing fee     |          |
| 1002     | 330      | 2002     | 165      | Design filing fee      |          |
| 1003     | 510      | 2003     | 255      | Plant filing fee       |          |
| 1004     | 740      | 2004     | 370      | Reissue filing fee     |          |
| 1005     | 160      | 2005     | 80       | Provisional filing fee |          |

SUBTOTAL (1)

(\$ )

### 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

|                    | Extra Claims         | Fees from below      | Fee Paid             |
|--------------------|----------------------|----------------------|----------------------|
| Total Claims       | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Independent Claims | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Multiple Dependent | <input type="text"/> | <input type="text"/> | <input type="text"/> |

Large Entity Small Entity

| Fee Code | Fee (\$) | Fee Code | Fee (\$) | Fee Description  |
|----------|----------|----------|----------|--|
| 1202     | 18       | 2202     | 9        | Claims in excess of 20                                     |
| 1201     | 84       | 2201     | 42       | Independent claims in excess of 3                          |
| 1203     | 280      | 2203     | 140      | Multiple dependent claim, if not paid                      |
| 1204     | 84       | 2204     | 42       | ** Reissue independent claims over original patent         |
| 1205     | 18       | 2205     | 9        | ** Reissue claims in excess of 20 and over original patent |

SUBTOTAL (2)

(\$ )

\*\*or number previously paid, if greater; For Reissues, see above

## FEE CALCULATION (continued)

### 3. ADDITIONAL FEES

| Large Fee Code | Large Entity | Small Fee Code | Small Entity | Fee Description  | Fee Paid |
|----------------|--------------|----------------|--------------|--|----------|
| 1051           | 130          | 2051           | 65           | Surcharge - late filing fee or oath  |          |
| 1052           | 50           | 2052           | 25           | Surcharge - late provisional filing fee or cover sheet.                    |          |
| 1053           | 130          | 1053           | 130          | Non-English specification  |          |
| 1812           | 2,520        | 1812           | 2,520        | For filing a request for reexamination                                     |          |
| 1804           | 920*         | 1804           | 920*         | Requesting publication of SIR prior to Examiner action                     |          |
| 1805           | 1,840*       | 1805           | 1,840*       | Requesting publication of SIR after Examiner action                        |          |
| 1251           | 110          | 2251           | 55           | Extension for reply within first month                                     |          |
| 1252           | 400          | 2252           | 200          | Extension for reply within second month                                    | 200      |
| 1253           | 920          | 2253           | 460          | Extension for reply within third month                                     |          |
| 1254           | 1,440        | 2254           | 720          | Extension for reply within fourth month                                    |          |
| 1255           | 1,960        | 2255           | 980          | Extension for reply within fifth month                                     |          |
| 1401           | 320          | 2401           | 160          | Notice of Appeal   |          |
| 1402           | 320          | 2402           | 160          | Filing a brief in support of an appeal                                     |          |
| 1403           | 280          | 2403           | 140          | Request for oral hearing   |          |
| 1451           | 1,510        | 1451           | 1,510        | Petition to institute a public use proceeding                              |          |
| 1452           | 110          | 2452           | 55           | Petition to revive - unavoidable   |          |
| 1453           | 1,280        | 2453           | 640          | Petition to revive - unintentional   |          |
| 1501           | 1,280        | 2501           | 640          | Utility issue fee (or reissue)   |          |
| 1502           | 460          | 2502           | 230          | Design issue fee   |          |
| 1503           | 620          | 2503           | 310          | Plant issue fee  |          |
| 1460           | 130          | 1460           | 130          | Petitions to the Commissioner  |          |
| 1807           | 50           | 1807           | 50           | Petitions related to provisional applications                              |          |
| 1806           | 180          | 1806           | 180          | Submission of Information Disclosure Stmt                                  |          |
| 8021           | 40           | 8021           | 40           | Recording each patent assignment per property (times number of properties) |          |
| 1809           | 740          | 2809           | 370          | Filing a submission after final rejection (37 CFR § 1.129(a))              |          |
| 1810           | 740          | 2810           | 370          | For each additional invention to be examined (37 CFR § 1.129(b))           |          |
| 1801           | 740          | 2801           | 370          | Request for Continued Examination (RCE)                                    |          |
| 1802           | 900          | 1802           | 900          | Request for expedited examination of a design application                  |          |

Other fee (specify) \_\_\_\_\_

\*Reduced by Basic Filing Fee Paid SUBTOTAL (3)

(\$ )200

## SUBMITTED BY

Complete (if applicable)

Name (Print/Type) Kenneth R. Allen Registration No. (Attorney/Agent) 27,301 Telephone 650-326-2400  
Signature *Kenneth R. Allen* Date December 17, 2002

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#4 *Amdt A*  
*Smw 1-2-03*

PATENT  
Attorney Docket No.: 18062C-39.10US  
Client Ref. No.: 2001-189-2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

SUNG-JOO YOO

Application No.: 10/075,780

Filed: February 12, 2002

For: METHOD AND APPARATUS FOR  
OPTICAL SIGNAL PROCESSING  
USING SUBCARRIER MULTIPLEXED  
HEADERS

Examiner: Agustin Bello

Art Unit: 2633

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AMENDMENT

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

In response to the Office Action mailed July 17, 2002, please amend the  
above-identified application as follows:

IN THE SPECIFICATION:

On page 1, line 25, paragraph 04, after "First" insert --,--. On page 1, line  
31, paragraph 04, delete "of the" second occurrence.

[04] While the integration of data networking and optical networking is  
a key to the next generation optical Internet, all-optical signal processing techniques  
involving optical headers are still premature for practical system applications. All-optical  
signal routing control has been suggested through the technique of Optical Label  
switching. Optical Label switching incorporates a short optical label at wavelengths  
adjacent a data signal wavelength, the label containing routing information in its  
modulation. There are two key challenges in implementing Optical-Label switching  
systems and routers. First, there is a stringent requirement for viable optical header  
processing and optical switching technologies, specifically, optical label switching  
networks will require a simple and effective method to swap headers in real time without